

1 (D) REMARKS

2 The sole issue is whether the rejection of all pending claims pending claims, rejected under 35
3 U.S.C. Sec. 103 as obvious under U.S. Pat. No. 6,544,601 (Kong), previously cited, and newly
4 cited U.S. Pat. No. 6,011,570 (Muranaka).

5 Applicants respectfully disagree with the Examiner's arguments as to the technical disclosure by
6 Kong. The Kong reference was successfully argued previous as not anticipating the present
7 application. Those arguments are incorporated herein by reference in their entirety.

8 The present Action alleges "Muranaka discloses a rewritable medium recording apparatus that
9 includes using molecular colorants (co 1, lines 39-65." Muranaka has no such teaching.

10 In Muranaka's own words, (emphases added) what is describe in his BACKGROUND OF THE
11 INVENTION section is,

12 "...a rewritable medium recording apparatus which can handle a card having a *thermally*
13 *reversible color developing layer*." (Col. 1, ll. 5-7);

14 which is further described as,

15 "...a low-molecular *substance* having the property that the *crystals structure* thereof is
16 changed when receiving the *thermal* energy..." (Col. 1., ll. 41-44, relied upon by the
17 Office);

18 and reliant upon,

19 "...the large single *crystal state*, the light is allowed to transmit so that the *thermally*
20 *reversible* color developing layer appears to be transparent...in a *polycrystal state*...light
21 is scattered to cause the *thermally* reversible color developing layer to become opaque,
22 with the result that the *thermally* reversible color developing layer appears white." (Col.
23 1, ll. 45-53, relied upon by the Office).

24 This is undeniable a liquid crystal technology. This is not what the present application describes
25 nor claims, namely methods and apparatus including a "...bistable, *electrochromic*, *molecular*
26 *colorant* ..." (see e.g., Vincent, Claim 1). Vincent et al. describe and claim a "molecular

1 colorant” in which each molecule is a nanotechnology single molecule switch, *each molecule*
2 having at least two different optical states dependent upon electrical forces.

3 A “low-molecular substance” as the term is used by Muranaka is undeniably a different term of
4 art. Persons skilled in the art understand “low-molecular” as relating to molecular binding (“The
5 force which holds a molecule at some site on the surface of a crystal.” McGraw Hill Dictionary of
6 Scientific and Technical Terms, 4th Ed., NY, copr. 1989), namely, weak Van Der Waals forces.

7 In his actual DETAILED DESCRIPTION OF THE INVENTION, Muranaka describes “...a
8 rewritable medium recording apparatus...” (col. 4, ll. 31-32) which works “By *heating* a printing
9 area...” (col. 4, ll. 60). Thus, an actual combination of Kong’s imaging on a reusable media
10 containing conventional, well-known colorants (e.g. ferroelectric particles, liquid crystals and the
11 like) that go through a “physical property” (Kong, col. 6, line 34) change (e.g. orientation) in
12 response to a stimulus from *electric* fields, elements 125) with the *thermal* heating apparatus of
13 Muranaka in fact provides a non-utilitarian technical combination.

14 In other words, while the Muranaka invention relates to crystalline structure changes thermally
15 induced - - namely, from a single crystal state to a polycrystalline state, the VINCENT et al.
16 present invention, as claimed for the exemplary embodiments, is an electrical field induced
17 wavelength absorption shift, due to a change in each molecule’s molecular orbital states, as in
18 the exemplary embodiments HOMO-LUMO state change. See, Appendix of present
19 application.

20 The combination of Kong plus Muranaka would logically be, at best, a liquid crystal type system
21 and methodology. The Office must consider what Vincent has disclosed as constituting the
22 claimed invention, viz. a true “molecular colorant.” It is axiomatic that claims are not to be
23 interpreted in a vacuum. Slimfold Mfg. Co. v. Kinhead Indus., 810 f.2d 1113, 1 USPQ 2d 1563
24 (Fed. Cir. 1987); Moleculon Res. Corp. v. CBS, Inc., 793 F.2d 1261, 229 USPQ 805 (Fed. Cir.
25 1986). The claim and specification language must be considered. DML, Inc. v. Deere & Co.,
26 755 F.2d 1570, 225 USPQ 236 (Fed. Cir. 1985). By ignoring the present application’s use of
27 the claims limitations as discussed in the Detailed Description, the argument as set forth in the
28 Action ignores this requirement. Understanding, or interpreting, a limitation *already in a claim* in

1 light of the Detailed Description is not the same as an impermissible reading of a limitation into
2 a claim. Otherwise, these court decisions are rendered meaningless. When a reference can be
3 deemed material merely because it has used the same terms-of-art as the application under
4 examination, then we will have reached the point of the untimely declaration by the former
5 Director of U.S. Patent Office, Charles H. Duell in 1899:

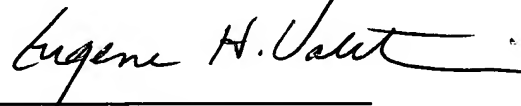
6 "Everything that can be invented has been invented."

7 It is respectfully requested that the rejection be withdrawn and the application allowed.

8 Questions or suggestions that will advance the case to allowance may be directed to the
9 undersigned by teleconference at the Examiner's convenience.

10 Date: OCT. 12, 2004
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Respectfully submitted,
Hewlett-Packard Company



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